PORSF
11.3.12-6
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Tara-Ann Karamas
07/31/2002 01:41 PM

To: Rodney.Struck@deq.state.or.us, BLISCHKE.Eric@deq.state.or.us
cc:
Subject: Outfall Pilot Project

Eric and Rod,

Attached are my comments on the outfall pilot project (Eric, I actually remembered to convert the document to Word before sending it...amazing). I have included some of Gina's comments on the LWG QAPP which could apply in the City's QAPP. I am going to try and check in with Gina again today to make sure there are no big issues still lingering. I will forward any information I receive on to you two.

As always, if you have any questions, please give me a call. I'll be calling into the meeting tomorrow morning.

Thanks,
Tara

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206-553-0039

EPA Comments on the Source Control Pilot Project for the City of Portland Outfalls

Sections 1.1 and 3.1.1 - Just to clarify, EPA and nine PRPs have signed an AOC. EPA does not have an agreement with the LWG per se although the nine PRPs who signed the AOC are members of the larger group (LWG).

Section 1.2 - The first sentence should read "...outfall drainage basins to minimize the recontamination potential of the Portland Harbor...." As we have discussed in previous meetings, we will not be able to prevent recontamination.

Section 3.3.2 - When did the City and DEQ sign the MOA for administration of NPDES General Permits?

Section 4 - Has any thought been given to the collection of effluent samples?

Figure 4-1 - If possible, this figure should illustrate the weight of evidence approach described later in this document.

Section 4.3 - The process might not be as simple as it is outlined here; we might decide that if levels are just below trigger levels, we may want to further investigate the system based on other factors.

Table 4-2 - For outfall M-1, under the "Available sediment data in vicinity", what is meant by "(3 of which are useful locations?" Was one sampling location deemed unusable for QA reasons?

Section 5.1 - Will available effluent data be part of the Basin Assessment?

Section 5.2 - Third sentence - what kind of samples are collected at the outfall or first available manhole - sediment or water?

Section 6 - It would be interesting to see how effluent data compares to the sediment data. I know it's not an objective to the pilot project but doing some seasonal sampling would be informative. We will not be able to conclude that the sampling results from the pilot project represent all seasons (nor will we know the seasonal fluctuation). However, we should be able to conclude that during the month of August, these outfalls do or do not appear to be a current source of sediment contamination.

Section 6.1 - Explain the rationale for surface samples as opposed to deeper samples.

Section 6.2 - Second to last sentence - It doesn't seem like this approach will be as simple as indicated here.

Section 7.2 - First sentence - Replace "it" with "the Phase 1 Data Evaluation Report." Would we like to include the time frame for the remaining outfalls to be sampled or at least the framework characterizing how this study will lead into future sampling or investigation (other than Phase

2)?

FSP

Section A.3 - Second paragraph - The first sentence states that the primary objective of the Pilot Program sampling is to determine the nature and extent of contamination in sediments. This objective has not been stated previously and I disagree that the sampling approach identified in this work plan will determine nature and extent; especially since no samples at depth are being collected. I also disagree that this should even been an objective of this pilot project.

The bullets in this section are confusing. For the first bullet - do you mean source instead of site? If not, what sites do you mean? For the third bullet, what site boundaries?

Second to last paragraph on A-6 - Again, I disagree that the sampling approach is designed to characterize the nature and extent of contamination in the vicinity of Outfall 18.

Section A.4.1 - Sediment sampling should occur downstream to upstream to minimize cross-contamination between sample locations. Please explain what is meant by "sample processing could...be conducted at an onshore facility."

Section A.5 - The grab sampler should also be decontaminated between each sample location, which is contrary to the decontamination procedures outlined on page A-11. The first set of decon procedures mentions that a methanol rinse will not be used if sampling for volatiles. The work plan does not indicate that VOC analysis will be conducted. In addition, since SVOC analysis will be conducted, a methanol rinse is critical to remove any remaining contamination between sample locations.

Acetone and hexane, while listed in the decon procedures, do not appear in the health and safety plan.

The last paragraph on page A-11 states that decontamination will occur before sampling and between each composite sample? What composite samples? A composite sample is typically defined as several discrete grabs separated by a specific distance. When several attempts are made at collecting enough sediment volume, this sample is usually considered a grab sample (as long as the distance between each attempt is minimal). Should this sentence read "...between each sample location..."

I am concerned with the first paragraph on page A-12 which states the grab sampler will be scrubbed with Alconox and rinsed with site water between stations. The grab sampler should be decontaminated using the procedures outlined on page A-11, after each sampling station to prevent cross contamination.

Table A-1 and Table B-4 - The container size for organics (TPH, SVOCs, PCBs, Pest) is usually 8 ounces; 4 ounces for TOC. You might want to check with the lab to ensure correct sample container size. Footnote 1 is incorrect - 3 times the normal sample volume for MS/MSD samples is not necessary for sediments (it is for water, which are not being collected). One sample

container is all that is required for sediments.

Section A.7.3 - The sentence beginning "Except for volatile samples..." can be omitted since VOCs are not being collected. I am not aware of any special sampling procedures for analysis of SVOC in sediment. The last sentence does not make sense - once the lid is placed on the sample jar, it is very unlikely that bubbles will be observed. This sounds like the procedure for collecting a water sample for VOC analysis.

Section A.8.2 - Equipment Blanks - Please define "station" and use terminology consistently. In this section, the FSP states that one equipment blank will be collected per station - do you mean per outfall? The last sentence does not indicate whether or not the rinsate blanks will be analyzed for TOC - I assume not but the FSP only mentions grain size and percent moisture.

Table A-2 and Table B-5 - The following ACG changes have been proposed to the LWG QAPP (lower ACGs are noted below in ppb):

b-BHC - 0.003
Lindane - 0.005
Heptachlor - 0.001
Aldrin - 0.004
Dieldrin - 0.0004
Methoxychlor - 1.0
Hexachlorobutadiene - 0.6
Dibenz(a,h)anthracene - 0.004
Benzo(a)Anthracene - 0.04
Benzo(a)Pyrene - 0.04
Benzo(k)Flouranthene - 0.04
Indeno(1,2,3-cd)Pyrene - 0.04
Pentachlorophenol - 0.58

Organochlorine pesticides: To improve the sediment MRLs listed in the QAPP, it is recommended that the laboratory extract at least 100 -150 grams of sediment sample, perform extract clean-up and concentrate the extract to the lowest volume possible. Lower initial calibration concentrations and/or on-column large volume injection techniques can also be employed to get the MRLs for the analytes listed above closer to the organochlorine pesticide ACGs.

SVOCs and PAHs: As discussed by EPA and contractors, samples for SVOC analyses will be initially analyzed using the full scan SW846-Method 8270C. If high concentrations of PAH target compounds were detected in the sample (x5 MRLs), the sample may not be analyzed using the modified Method 8270C-SIM and the laboratory may report the results off the full scan Method 8270C. Since it will not take much more effort on the labs, for Method 8270C SIM analyses, it is recommended that all of the PAHs be included in the target analyte list .

Pentachlorophenol (PCP): To obtain lower detection limits for PCP, it is recommended that PCP be added to the herbicides target compound list and also analyzed using the SW846-Method

8151A .

QAPP

Section 3.3.2 - Omit the "(temperature vial)" in the 4th bullet. Page A-18 of the FSP indicates that a temperature blank will not be used because the laboratory will check cooler temperatures with an infrared probe.

Section 3.3.3 - The first sentence of the third paragraph should be changed to read "Coolers will be packed with ice, which will be double bagged in Ziploc baggies." or something to clarify that the coolers themselves will not be double bagged in Ziploc baggies.

Why do the coolers have to be shipped in accordance with the DOT procedures for transporting hazardous substances? Typically, the samples themselves are not considered to be hazardous substances; however, if dry ice is used in shipment, the DOT procedures would need to be followed.

Add the contact information for Columbia Analytical Services.

Section 3.4 - Some of the ACGs are very low and verification with the lab may be necessary to determine if these levels can be met. It is important to note that the LWG sampling and the pilot project sampling have very different objectives and therefore, it is possible for the pilot project to have higher ACGs than required for LWG risk assessment sampling.

Section 3.9 - The following comment was given to the LWG regarding data management:

State in the QAPP who will be responsible for archiving hard copy data deliverables and documentation. State in the QAPP that the laboratories are required to archive the raw electronic data off the instruments. Specify the length of time the labs are required to store the archived data.

Section 3.9.1 - Can the data in CH2M Hill's data management system be exported to other systems - specifically NOAA's Query Manager and whichever format the LWG uses?

Section 3.9.5 - The procedures in this section are confusing - please explain the Data Reduction module more clearly. For instance, what is meant by "field duplicates, re-analyses, replicates and dilutions are reduced..."

Section 5 - The following comment was given to the LWG regarding validation:

It is recommended that 100% of the analytical data be validated by a third party reviewer.

Table B-1 - The mailing address for Tara Karamas should be:
Tara Karamas
EPA, ECL-115
1200 Sixth Avenue

Seattle, WA 98101

Table B-2 - The sample figures indicate that 10 samples will be collected from each outfall and thus a 20 should be placed in the "number of samples" column.

Table B-5 - Add footnotes. Indicate which ACG will be used for tetrachlorophenol.

Table B-6 - See comments for Table B-2.

Below is a comment provided to the LWG regarding QAPP organization:

It is recommended that the content and format of the QAPP be revised following the agency required EPA/R5 QA document, "EPA Requirements for Quality Assurance Project Plans", Final version EPA/240/B-01/001, March, 2001. It is therefore recommended that the QAPP be revised in accordance with the EPA/R5 QA document which requires the following content and format:

A. Title and Approval Page
B. Table of Contents
1.0 Project Management Elements
    1.1 Distribution List
    1.2 Project/ Task Organization
    1.3 Problem Definition/ Background
        1.3.1 Background
        1.3.2 Objectives/Scope
    1.4 Project/ Task Description and Schedule
        1.4.1 Project/Task Description
        1.4.2 Schedule of Tasks
    1.5 Quality Objectives and Criteria for Measurement Data
    1.6 Special Training Requirements/ Certification
    1.7 Documentation and Records

2.0 Measurement/ Data Acquisition
    2.1 Sampling Process Design (Experimental Design)
    2.2 Sampling Methods Requirements
    2.3 Sample Handling and Custody Requirements
        2.3.1 Sampling Procedures
        2.3.2 Sample Custody Procedures
        2.3.3 Shipping Requirements
        2.3.4 Decontamination Procedures
    2.4 Analytical Methods Requirements
    2.5 Quality Control Requirements
    2.6 Instrument/Equipment Testing, Inspection and Maintenance Requirements
    2.7 Instrument Calibration and Frequency
    2.8 Inspection/Acceptance Requirements for Supplies and Consumables
    2.9 Data Acquisition Requirements (Non-direct Measurements)

2.10 Data Management

3.0 Assessment/Oversight
- 3.1 Assessments and Response Actions
- 3.2 Reports to Management

4.0 Data Validation and Usability
- 4.1 Data Review, Validation, and Verification Requirements
- 4.2 Validation and Verification Methods

For more information, SEA is referred to this website:
http://www.epa.gov/r10earth/offices/oea/epaqar5 .

HASP

Section 4, PPE Specifications - Delete the statement "and no danger of drowning exists" under Sediment sampling (shore).